Metals Deals

Forging Ahead
2015 outlook and 2014 review

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Methodology

Metals Deals 2014-15 is based on published transactions from the SDC Platinum (Thomson Reuters) database, January 2015. The report includes data from prior years and is the latest in an annual series of metals deals reports. Comparative data for prior years may differ from that appearing in previous editions of our annual analysis. This can arise, for example, as a result of updated information or methodological refinements and consequent restatement of the input database.

Analysis encompasses only those deals which are completed in the calendar year, except for figure 6, which is based on pending deals. Deal values are the consideration value announced or reported, including any assumption of debt and liabilities. Figures relate to actual stake purchased and are not extrapolated to 100%. The geographical split of the deals refers to the location of the target company or assets. Deals located in the territory of the Russian Federation are included in the totals for central and eastern Europe. The analysis relates to target companies in the supply chain for metals and basic metal products, including recycling.

The sectors and subsectors analysed include deals for targets with primary SIC codes that fall into one of the following industry groups: iron ores; ferroalloy ores, except vanadium; steel works, blast furnaces, rolling mills and finishing mills; iron and steel foundries; primary smelting and refining/nonferrous; secondary smelting and refining/nonferrous; rolling, drawing, and extruding/nonferrous; nonferrous foundries; miscellaneous primary metals products; and metals service centres and offices.

Introduction

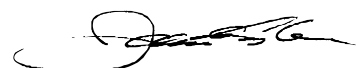
Welcome to Metals Deals: Forging Ahead 2015 outlook and 2014 review, PwC's annual analysis of deal activity in the metals industry and our outlook on the prospects for dealmaking in the year ahead. We also take a regional look at what is happening in the main markets around the world.

We open our report with a discussion of some of the main themes we expect to be at work. Deal activity remained relatively subdued in 2014. Total deal value fell away to levels last seen in 2009 and 2003, the earliest report in our annual series. Indeed, 2014's total deal value was less than half of that recorded in seven of the last 11 years. With economic growth forecasts being adjusted downwards and the uncertainty over the direction of commodity prices, we don't expect dealmakers to be rushing to the table in 2015.

Looking ahead, we see dealmaking in the sector being primarily driven by specific country, industry or company considerations rather than by the global cycle, the direction of which remains uncertain. The urge to make deals solely to achieve industry consolidation is gone. Developments in the price of oil will have a significant part to play. We anticipate that some companies may review their resource portfolios in the light of low commodity prices.

The forecast from our modelling of metals M&A flow against wider commodities and macroeconomic trends (see p.7) suggests deal volume in 2015 will be close to that seen in 2014, but could be accompanied by an upturn in total deal value. Our volume forecast from a year ago proved very accurate, with the number of announced deals in 2014 turning out in line with the model's prediction.

This report is the latest annual review edition in our *Forging Ahead* series on dealmaking in the sector. It sits alongside our quarterly *Forging Ahead* reports and is one of a range of deals publications from PwC, covering sectors including aerospace & defence, renewable energy, power, and oil & gas. Together, the family of deals reports provides a comprehensive analysis of M&A activity across industries worldwide.



Jim Forbes
Global Metals Leader

This report is the latest annual review edition in our Forging Ahead series on dealmaking in the sector.

http://www.pwc.com/us/en/industrial-products/publications/forging-ahead.jhtml

2015 deal outlook: buyers and sellers to play a waiting game

We predicted last year that metals sector dealmaking was likely to remain in a 'low gear' and prospects did not look good for any strong recovery in M&A during 2014. Indeed, deal momentum has not just been in a low gear but has been close to stalling in some parts of the world. We anticipate that slow momentum is likely to remain the case in 2015. On a global level, we are still waiting for the kind of convincing, strong and sustainable growth outlook that would give the confidence needed to agree on valuations. The macro-economic context does not provide sufficient signals to suggest such a climate will become established, at least not in the near term.

Much of the industry outlook is affected by China, as the largest global consumer of both steel and iron ore. After a sustained period of strong steel consumption growth in China, Chinese and world steel demand moderated considerably in 2014 and growth is expected to decline further in 2015. The World Steel Association forecasts just 0.8% growth in 'apparent steel use'[1] in 2015, down from 6.1% in 2013. Higher demand is likely to come from India, with forecast growth of 6% in 2015 compared to 1.8% in 2013. Recoveries in Europe, the US and Japan are not anticipated to be strong enough to offset the slowdown in China and a number of emerging economies. Overall world steel demand growth is thus expected to remain around 2% in both 2014 and 2015, down from 3.8% in 2013.[2]

The big new factor is the oil price. Just a few months ago, in October 2014, the IMF was assuming that the price of oil would average US$102.76 a barrel in 2014 and US$99.36 a barrel in 2015.[3] Two months later the oil price ended 2014 at just over US$60, a 50% fall since June 2014, and then headed lower still to around US$50 at the start of 2015. Given the stance of Saudi Arabia as the key swing producer, it is reasonable to assume that a lower oil price environment will persist.

The oil price slump has a complex effect on world economic growth in general and for demand for metals production in particular. In general, it imposes strains for oil exporters and benefits for oil importers. A low oil price could provide "a shot in the arm for the global economy"[4]. The extent to which this is good news for metals companies is likely to be dependent on their sector exposure. Those with output geared more towards consumer markets such as the automotive industry and non-oil infrastructure are likely to gain. But there is also a danger that the oil price fall will stoke deflation fears and introduce more systemic risk into global markets and economic confidence.

Metals companies focused on pipeline or other oil infrastructure will need to factor in capital spending cutbacks by customers, particularly explorers of unconventional oil sources whose economics would be jeopardised by a persistently low oil price. Similarly, companies supplying steel for large infrastructure projects could face constraints where these are sponsored by governments that are hit by lower oil revenues. A lower oil price could also

1 'Apparent steel use' is the mathematical sum of production plus imports minus exports.

2 World Steel Association, short-range outlook 2014-15, 6 October 2014.

3 International Monetary Fund, World Economic Outlook, October 2014.

4 IMF direct, Seven questions about the recent oil price slump, 22 Dec 2014.

affect momentum towards 'lightweighting' in transportation. We do not expect this to be a significant effect as the fuel economy gains remain in place whether fuel prices are high or low and many of the automotive manufacturers are subject to country-specific long-term increases in average fleet fuel economy.

As 2015 unfolds, we believe the following key considerations are likely to characterise metals M&A activity in the period ahead.

Weak overall deal momentum expected in 2015

The outlook for economic growth is very relevant to metals sector M&A, given the cyclical nature of the sector and the way it is significantly affected by general economic conditions. The pre-crisis boom now seems like a distant era and, with downside risks increasing in recent months, global growth forecasts have been adjusted slightly downward. We expect the constrained and somewhat uncertain overall context for global growth to translate into a continued weak environment for metals dealmaking in 2015. Our modelling of metals M&A flow against wider commodities and macroeconomic trends indicates deal volume in 2015 will remain close to the subdued level seen in 2014, although a more positive alumina and aluminium price outlook could produce an upturn in deal value (see p.7). The modelling analysis suggests there is potential for a significant year-on-year rise in percentage terms but the significance of any one-year percentage comparison needs to be put in the context of coming off a very low base.

Playing a waiting game

The oil price dive is just the latest in a number of uncertainties affecting the global outlook. Concerns over Chinese growth, currency fluctuations, potential eurozone recession and the spectre of deflation all cloud the near-term horizon. These also translate into uncertainty about metals sector commodity prices. Set against these negatives, a continued low oil price would provide a significant boost to global GDP. But until there is a greater level of certainty about how this and other issues will stabilise, it is difficult to see how potential dealmakers can have confidence about the economics of deals. Thus we anticipate that many will play a waiting game for some time into 2015, or longer, until the economic context becomes clearer.

Focus turns to non-M&A alliances

With continued uncertainty about economic growth, we expect metals companies to possibly set their sights on partnership or alliance activity that stops short of full M&A combinations. The results of our 2015 Global CEO Survey show that 54% of metals company CEOs plan to partner with other entities this year.[5] That's a huge leap from last year, when only 16% planned to form alliances. Their main reasons for collaborating are to get access to new technologies, new customers or new geographic markets without having to make all of the investment themselves. Partnerships are also likely as companies seek to move further down the value chain into value-added manufacturing and services for customers.

Country and regional contexts will outweigh global factors

The economic outlook is becoming increasingly country-specific, with some countries stuck in 'low-gear' or 'near-zero' growth while others have maintained or, in the case of the US, attained a higher gear. This country-specific variability is likely to have a bearing on the deal outlook in metals, with M&A confidence and motivations being shaped more by the country context than any global cyclical factors. Companies in the US, for example, are now much more firmly in 'revival' mode after the slump of 2008-2010, while some in Europe are still working through 'survival' mode. These differences are reflected in sector deal flow. US corporates have been predominant on the acquisition side of many of the larger deals and sector activity as a whole has been weighted noticeably towards North America. European companies have remained largely in divestment mode. We don't expect to see a dramatic change in this pattern in 2015.

A tale of two metals

The contrasts between aluminium and steel companies look set to continue into 2015. The steel sector remains in defensive mode while there is a much more positive outlook in aluminium. Alcoa, for example, is anticipating a 7% rise in global demand for aluminium in 2015.[6] World steel demand, on the other hand, is expected to increase by no more than 2%.[7] Lower oil and energy prices will benefit the cost side of both sectors but the demand impact will be much more mixed. Any positive impact on demand is more likely to benefit the aluminium sector. Companies in the steel sector are more exposed to the negative impact that will flow from energy industry capital expenditure reductions. The more positive price and demand environment for aluminium is reflected in our modelling of forecast deal flow in the year ahead. Aluminium deal activity is likely to continue to be focused downstream, with companies seeking to make strategic acquisitions in value-add segments to move further away from the commodity end of the value chain.

Commodity prices and demand weigh on deals

Downward adjustments to Chinese and wider global growth expectations are affecting iron ore and copper commodity prices. Iron ore prices have fallen by around 50% since the start of 2014 and copper prices reached a five-and-a-half-year low in January 2015. For the first time in decades, growth in Chinese steel output is flattening out but worldwide supply of iron ore continues to expand as lower-cost producers seek to gain market share at the expense of higher-cost sources. With lower energy prices adding to this dynamic, it may take some time before the course of the next phase of the commodities cycle becomes clear. Along with the wider uncertainties, this will weigh on metals deal activity.

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5 PwC 18th CEO Survey - Metals Industry Snapshot, Feb 2015 .

6 Alcoa, Fourth Quarter 2014 and Full-Year Results, 12 Jan 2015.

7 Worldsteel Short Range Outlook 2014-2015, Oct 2014.

A hard look at resource portfolios

The fall in raw materials prices and weaker demand for steel might cause some steel companies to take a hard look at their resource portfolios. Portfolio reviews will be focused on the optimal balance between owning mining assets and buying resources on the open market, given low ore and coal prices. It could provide a buying opportunity for resource companies, who will be in a better position to get value from the mines, or for metals companies located in high-growth markets such as India, who might see an optimal opportunity to gain better security of supply. The challenge for such deals will be to get price agreement between buyers and sellers against a backdrop of considerable market price uncertainty.

Flatter steel output will add to consolidation pressures

If Chinese steel output growth has indeed peaked, it could hasten long-anticipated restructuring in China's steel industry. Flat demand will put pressure on companies within China. Indeed, 2015 began with calls from the China Iron & Steel Association for the industry to speed up its restructuring by slashing excess capacity, improving efficiency and switching to higher-quality products.[8] The steel sector in China still remains fragmented with immense scope for consolidation but progress to actually deliver this has been slow. The same can also be said for the steel industry elsewhere in the world which, unlike the aluminium industry, has not moved as far as it could down the consolidation road. There has been a return to balance sheet health for some companies which, together with a better financing outlook, could prompt some moves. But this is a longstanding issue and it would hardly be surprising if concerted consolidation of the industry remained off the deal agenda.

Russia could be a place to watch

The outlook for Russian metals companies is particularly mixed. The economy is expected to experience a significant contraction in 2015 due to a combination of lower oil prices, higher inflation, tighter monetary conditions and sanctions imposed by the West. Additional pressures arise from the consequent reduction in Russia's credit rating and the limitations in access to capital markets. These conditions will necessitate a further reliance on a weak home market although the rouble currency collapse will boost the competitiveness of metals companies in the international markets that they can serve. The constraints facing the sector in Russia come on top of an already stretched financial situation facing many companies. Vertically integrated companies will have more flexibility to ride out conditions. We could see some deal flow as weaker companies become takeover targets. We might also expect further deleveraging and divestment of some remaining foreign assets.

Currency shifts affect deal economics

Currency fluctuations are a key factor affecting deals. While nothing compared to the fall of the rouble, the recent weakness of the Japanese, Indian and Brazilian currencies is significant. The Brazilian real and the Indian rupee have fallen by around a third against the US dollar since 2012, while the yen has depreciated around 40% since the advent of 'Abenomics'. It's an important factor in further dampening appetite for international acquisitions by Japanese metals companies but, at the same time, it makes disposals of foreign assets by those companies more attractive in home currency terms. The same issues apply to Indian and Brazilian corporates while also reducing the cost of any inbound moves for assets.

8 Reuters, China's steel sector needs restructuring, 15 Jan 2015.

Modelling metals M&A flow against wider commodities and macroeconomic trends

PwC has conducted an analysis testing the historical relationship of metals sector M&A with a variety of macroeconomic variables and metal commodities indicators. The analysis encompasses factors including nominal GDP, direct investment levels, trade volumes and commodity prices. In particular, metals prices and the business cycle are often good predictors of deal activity.

We found strong correlations between trends in metals deal activity and the set of wider metals and macroeconomic measures in the analysis, especially in terms of flows in metals deal announcements. Our updated models produce coefficient of determination (R2) values of 0.703 and 0.865 for announced deal volume and value respectively. We've taken the analysis back over a number of years with the following results:

2004-2014

What the analysis predicted:

- 3.1% compound annual growth rate (CAGR) in announced deal numbers.
- -1.8% CAGR in announced deal value.

What the actual outturn was:

- 0.6% CAGR in announced deal numbers.
- 0.1% CAGR in announced deal value.

Deal volume tends to be the more stable series over time, as judged by the average year-over-year change in actual number of deals. Deal value is more volatile – while it has statistically significant relationships with economic and metal commodity variables, it is also susceptible to variability arising from the potential for a few exceptionally large deals to drive the annual totals. This can make deal value less certain to predict compared to the trend in deal volume.

In our prior year report, our model predicted a fall in deal numbers, which has proved to be in line with the actual outturn fall in deal volume. There was divergence in the deal value forecast vs. actual, which reflects the greater volatility and forecast error associated with deal value (discussed above).

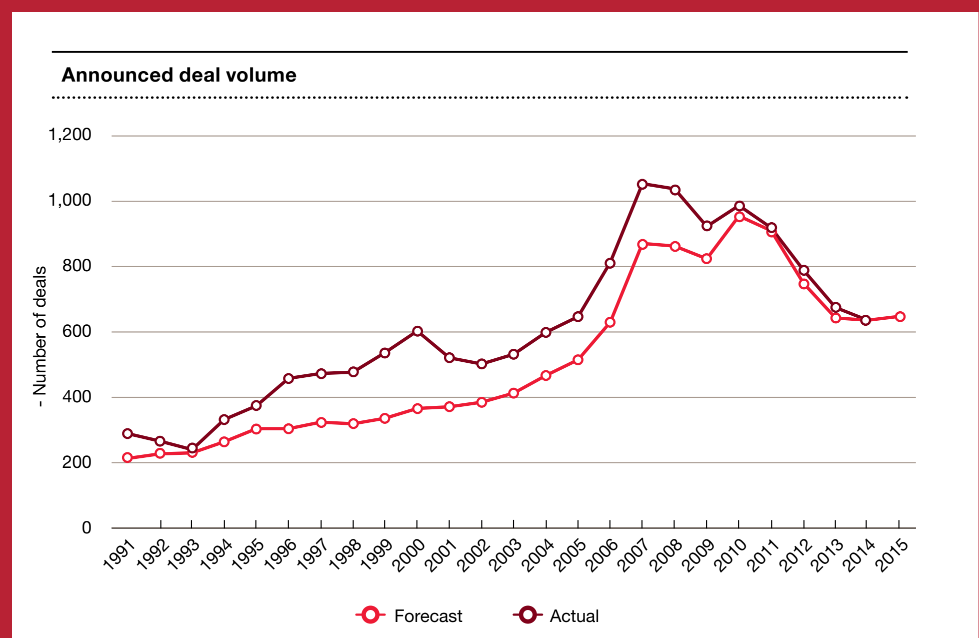
Looking ahead

What the model predicts for the year ahead:

- 1.9% CAGR in announced deal numbers.
- 47.1% CAGR in announced deal value.

Our updated models indicate a minor increase in announced metals M&A deal numbers in 2015 with much stronger growth in deal value. This is mainly due to a relatively unchanged metals commodity price index forecast for 2015 (a predictive variable in the deal volume model) but a relatively large expected jump in the aluminium price index (a predictive variable in the deal value model). The data and forecasts for these indices were sourced from the International Monetary Fund. The expected deal value growth may seem high at 47% but this is well within historical norms. For example, around one in five of the last 25 years have seen increases or declines in deal value of this magnitude or more.

We publish the outcome only for announced deals here because the historical analysis indicates that this provides the most robust and strong correlation. Please note that this differs from the analysis in the rest of this report, which is based on completed deals.



2014 deal review

Deal flow: sector deal value plummets

The total value of metals sector deals in 2014 fell close to the lowest levels recorded in our series of reports. Deal value dropped a dramatic 52% year on year, from US$34.8bn in 2013 to US$16.8bn in 2014, US$1.7bn above the low of 2009, immediately post-credit crunch, and just US$0.7bn above the level of 2003, the first year of our data series. It's a far cry from the 2006-08 period when total deal value in the sector was an average of more than five times higher. Indeed, 2014's total deal value was less than half of that recorded in seven of the last 11 years (figure 1).

Deal numbers, in contrast, are comparable with that earlier period, although much lower than the immediate post-credit crunch years when a large number of smaller deals were transacted as companies moved to adjust to the changed economic and financial environment. Deal numbers fell by 6% in 2014 compared to the previous year. Domestic deals continued to dominate in 2014, accounting for nearly three quarters (72%) of all metals deals, but their volume was down 8%, and their total value plunged 77% to just US$7.2bn. It's the lowest domestic deal value total that we've seen in any year since we started our current time series of data, below even the US$10.7bn recorded in 2009.

In contrast, the number of international deals held up compared with 2013 and their total value bounced off their own all-time series low recorded the previous year. A number of significant larger cross-border transactions saw international deal value rise from US$3.8bn in 2013 to US$9.6bn in 2014 (figure 2). Even so, it was still a long way short of the US$17.9bn recorded just two years earlier in 2012.

International deal activity, as measured by the value of completed transactions, was largely focused on steel and 'other metals', with the value of aluminium transactions comprising just US$0.7bn of the US$9.6bn international deals total (figure 3). Total deal values were down in all the sub-sectors of steel, aluminium and 'other metals' – down 7% in steel, nearly halving in 'other metals' and plummeting by 89% in aluminium. But in the case of aluminium, this was due to the completion in 2013 of a single very

Figure 1: Total metals deals, 2003-2014

	Number	Cross-border number as % of total number	Value (US$bn)	Cross-border value as % of total value
2014	336	28%	16.8	57%
2013	357	26%	34.8	11%
2012	507	30%	45.8	39%
2011	531	33%	38.2	57%
2010	548	34%	26.1	51%
2009	521	25%	15.1	29%
2008	397	38%	60.6	62%
2007	411	35%	144.7	68%
2006	385	29%	86.4	73%
2005	250	40%	34.8	49%
2004	166	40%	37.0	31%
2003	164	30%	16.1	60%

Source: PwC Forging Ahead deal analysis, using data from Bloomberg, mergermarket, Thomson Financial and PwC analysis.

large US$7.5bn state merger of two United Arab Emirates state firms which inflated the comparative. Taking that deal out of the comparison, the fall in aluminium deal value was in line with that in the other sub-sectors. Deal volume fell 17% in steel and 12% in other metals but rose by two thirds (67%) in aluminium, with a large number of smaller deals.

Figure 2: Domestic and cross-border metals deals, 2013-2014

	Number of deals			Deal value (US$bn)		
	2013	2014	% change	2013	2014	% change
Domestic	263	242	-8%	31.1	7.2	-77%
Cross-border	94	94	0%	3.8	9.6	153%
Total	**357**	**336**	**-6%**	**34.8**	**16.8**	**-52%**

Figure 3: Dealmaking industry sector (by target)

	Number of deals			Deal value (US$bn)		
Steel	2013	2014	% change	2013	2014	% change
Domestic	88	69	-22%	8.1	3.0	-63%
Cross-border	29	28	-3%	0.2	4.7	2780%
Total	**117**	**97**	**-17%**	**8.3**	**7.6**	**-7%**

	Number of deals			Deal value (US$bn)		
Aluminium	2013	2014	% change	2013	2014	% change
Domestic	29	44	52%	9.4	.7	-93%
Cross-border	7	16	129%	0.1	0.3	573%
Total	**36**	**60**	**67%**	**9.4**	**1.0**	**-89%**

	Number of deals			Deal value (US$bn)		
Other metals	2013	2014	% change	2013	2014	% change
Domestic	146	129	-12%	13.6	3.5	-74%
Cross-border	58	50	-14%	3.5	4.6	30%
Total	**204**	**179**	**-12%**	**17.1**	**8.2**	**-52%**

Note: Total deal values are rounded to a single decimal place. The % change column reports accurate percentage change in total values before rounding and may differ from the percentage change in rounded values.

Figure 4: Dealmaking by industry sector (by target)

Dealmakers: US buyers and sellers in the spotlight

With overall deal flow falling, the number of completed mega deals also declined. Five of the top ten metals deals in 2014 were for amounts of 'US$1bn-plus' compared to seven in the previous year and ten in 2012. Six of the ten biggest deals had US buyers, reflecting the upturn in economic confidence in the US and Canada.

The largest deal completed in 2014 saw US company Alcoa make a big step in its move away from being a commodity seller to focusing heavily on value-add businesses. Its US$3bn acquisition of Firth Rixson, a global leader in aerospace jet engine components, is expected to grow Alcoa's annual aerospace revenues by a fifth. Alcoa's aerospace business is the largest contributor to its value-add businesses, which in 2013 comprised 57% of overall revenues and 80% of segment profits.

Two of the other US buyer purchases came from disposals by Russian company Severstal which sealed its exit from the US. The process had started in 2010 and was completed in June 2014 with the sale of its Columbus mini-mill to Steel Dynamics for US$1.6bn and its Dearborn plant to AK Steel for US$0.7bn. Severstal has since announced plans to buy back as much as US$600m worth of dollar bonds as it seeks to further deleverage against a background of the weak rouble.

The second largest 2014 deal arose from EU Commission conditions governing the sale of ThyssenKrupp's (TK) Inoxum stainless steel business to Outokumpu back in 2012. As a result, the Terni steel plant in Italy and the VDM alloy unit in Germany transferred back to TK's ownership during 2014 in a US$1.7bn transaction. As well as seeking to exit the stainless steel sector, TK is also divesting its American steel assets. The search for a buyer for its Steel Americas business moved part-way forward with the US$1.6bn sale of its Alabama steel plant to a consortium of ArcelorMittal and Nippon Steel & Sumitomo Metal. Its Brazilian plant remains unsold but the same deal gave TK a contract whereby the consortium purchases slabs from this facility, securing a minimum 40% capacity utilisation for it until 2019.

A third 'US$1bn-plus' deal also had a TK background. Waupaca Foundry had been owned by TK for many decades before its 2012 sale to KPS Capital Partners for an undisclosed amount and then its US$1.3bn sale in 2014 to Hitachi Metals. The short turnaround timeframe suggests good business for the private equity sellers. Waupaca Foundry is the largest iron foundry company in the world and operates six plants in Wisconsin, Tennessee and Indiana. The post-merger integration aims to create a global leader in the automotive, commercial vehicle, off-highway and other industrial sectors.

Figure 5: Top ten metals deals completed in 2014

Rank	Completion date	Target	Sector	Bidder	Target nation	Bidder nation	Value (US$m)
1	20/11/2014	Firth Rixson Ltd	Other metal	Alcoa Inc	United Kingdom	United States	3,000
2	28/2/2014	Acciai Speciali Terni SpA	Steel	ThyssenKrupp AG	Italy	Germany	1,725
3	16/9/2014	Severstal Columbus LLC	Other metal	Steel Dynamics Inc.	United States	United States	1,625
4	26/2/2014	ThyssenKrupp Steel USA LLC	Steel	Investor Group	United States	Japan	1,550
5	11/11/2014	Waupaca Foundry Holdings Inc	Other metal	Hitachi Metals Ltd	United States	Japan	1,300
6	8/10/2014	Gallatin Steel Co	Steel	Nucor Corp	United States	United States	770
7	16/9/2014	Severstal Dearborn LLC	Steel	AK Steel Corp	United States	United States	700
8	18/8/2014	Thomas & Betts Corp Meyer Steel Structures Division	Steel	Trinity Industries Inc	United States	United States	600
9	12/11/2014	Bridon International Ltd	Steel	Ontario Teachers' Pension Plan {OTPP}	United Kingdom	Canada	587
10	9/5/2014	Haverhill Coke Co LLC	Steel	SunCoke Energy Partners LP	United States	United States	365

Figure 6: Top five deals still pending at year end 2014

Rank	Month announced	Target	Sector	Bidder	Target nation	Bidder nation	Value (US$m)
1	March 2014	CITIC Pacific Ltd,	Steel	National Social Security Fund	Hong Kong	China	2,167
2	December 2014	Dynacast International Inc.	Steel	Partners Group Holding AG	United States	Switzerland	1,100
3	July 2014	Shenyang Coking Coal Co. Ltd.	Other metals	Investor Group	China	China	1,043
4	December 2014	Hunan Nonferrous Metals Corp	Other metals	Hunan Nonferrous Metals Jinsheng Development Co Ltd.	China	China	798
5	May 2014	Bradken Ltd.	Steel	Investor Group	Australia	United States	726

Deal places: the majority share switches back to North America and western Europe

The dramatic year-on-year fall in metals deal value was most strongly felt in the Asia Pacific region, South America, and central and eastern Europe. The trend of an increasing switch in the focus of metals deals to Asia Pacific, which had been evident in recent years, came to an abrupt halt. Total Asia Pacific target deal value plunged from a 61% share of worldwide metals deal value in 2013 to a 17% share in 2014 (figure 7). It is a return to the level of three years ago, in 2011, when the region's share was 19%.

Western Europe was the only region to see an actual increase in target deal value, albeit from a very low base. North America and western Europe together accounted for four fifths (80%) of total deal value. This represents a very high share for these regions, reflecting a focus of deals on production assets rather than raw materials. The 80% share compares with 58% in 2011 and 43% in 2008, with the latter being a year with a significant number of deals for iron ore.

The relative absence of resource acquisitions meant that South American deal activity dwindled dramatically. At just US$0.3bn, the 2014 total was down 73% on the US$1.1bn in 2013. In turn, that 2013 total had itself been down a similar 72% year on year. They represent the lowest totals in the region for many years and compare with US$7.8bn in 2011 and US$14.8bn in 2008 at the height of the rush to secure iron ore assets.

As we discussed earlier in the report, international deals make up the greater share of the limited amount of dealmaking that has taken place. And we can see from figure 8 that the lion's share of international deal value has been transactions across continents rather than deals for targets within the same region. US$7.4bn of the total US$9.6bn international deal value was cross-continental. Cross-continental deals accounted for 17% of all metals deals by number and 44% of total deal value in 2014, with the latter up from just a 10% share the year before.

Figure 7: M&A activity by target continent

North America	Number	% of all world deals	Value (US$bn)	% of total value
2013	54	15%	7.0	20%
2014	75	22%	7.6	45%
% change	**39%**		**9%**	

Asia Pacific	Number	% of all world deals	Value (US$bn)	% of total value
2013	164	46%	21.1	61%
2014	138	41%	2.8	17%
% change	**-16%**		**-87%**	

Central & South America	Number	% of all world deals	Value (US$bn)	% of total value
2013	14	4%	1.1	3%
2014	12	4%	0.3	2%
% change	**-14%**		**-73%**	

Western Europe	Number	% of all world deals	Value (US$bn)	% of total value
2013	83	23%	2.5	7%
2014	77	23%	5.9	35%
% change	**-7%**		**136%**	

Eastern & central Europe	Number	% of all world deals	Value (US$bn)	% of total value
2013	42	12%	3.1	9%
2014	34	10%	0.3	2%
% change	**-19%**		**-90%**	

Figure 8: Regional vs. cross-continental metals deals, 2013 & 2014

	Regional		Cross-continental	
2014	Total	% of total deals	Total	% of total deals
Number	279	83%	57	17%
Value (US$bn)	9.4	56%	7.4	44%

	Regional		Cross-continental	
2013	Total	% of total deals	Total	% of total deals
Number	303	85%	54	15%
Value (US$bn)	31.3	90%	3.5	10%

Note: Regional deals are deals (either domestic or cross-border) where the target and acquirer are in the same region/continent. Cross-continental deals are deals where the target and acquirer are in different regions/continents.

Americas

North America continues to be the focal point for deals in the region, following a falling away of activity in South America. Activity took a bit of an upturn in 2014, in terms of the number of deals, with deal volume up 39%, from 54 deals in 2013 to 75 in 2014. North American deal value rose 9%, from US$7bn to US$7.76bn. But as a reference point, it's a long way from the US$77bn total value of North American transactions in 2007 before the financial crisis or even the US$12.2bn total of 2011.

Nonetheless, the timing was right for a number of corporates to invest in production capability, typically increasing their technological capabilities or extending their ability to deliver 'value-added' products. The biggest purchase of 2014 by a US buyer had both these characteristics. Alcoa's US$3bn purchase of UK jets part manufacturer Firth Rixson from private equity firm Oak Hill Capital Partners represented a further decisive step downstream for a company that used to be synonymous with upstream alumina smelting and aluminium production. Alcoa expects the takeover to increase its aerospace revenue by 20%, to approximately $4.8 billion a year.

Divestment of non-core assets by foreign owners lay behind a number of big deals in the US steel sector. ThyssenKrupp (TK), Severstal, Gerdau, ArcelorMittal and ABB all featured in the sales of US assets in 2014. In the second largest US buyer purchase, Steel Dynamics' US$1.6bn acquisition of the Columbus steelmaking plant from exiting Russian company Severstal gave it one of the newest and most technologically advanced mini-mills in North America. The deal broadens Steel Dynamics' product portfolio by adding capabilities serving high-margin customers in the oil tubular goods and automotive sectors as well as increasing its presence in the southern US and Mexican industrial markets.

Severstal's other US facility, at Dearborn, was bought by AK Steel for US$700m. The mill, which produces high-quality, flat-rolled steels primarily for the automotive, construction and appliance markets, had completed a large-scale modernisation campaign in 2011. Further activity in the US mini-mill sector came with Nucor Corporation's US$770m purchase of Kentucky-based Gallatin Steel from its joint venture owners ArcelorMittal and Gerdau Ameristeel Corporation of Canada, a unit of Brazil's Gerdau. The Gallatin flat-rolled products mill has an annual capacity of approximately 1.8m tons, producing pipe and tubular products.

The fifth largest US corporate acquisition was Trinity Industries' US$600m purchase of Meyer Steel Structures, the utility steel structures division of Thomas & Betts Corporation, from Swiss power and automation group ABB. Trinity is a diversified industries group and the acquisition reflects its focus on energy and infrastructure markets.

There were a number of significant inbound acquisitions for US targets. The largest of these saw a consortium of ArcelorMittal and Nippon Steel & Sumitomo Metal buy THK's Calvert, Alabama steel plant in a US$1.6bn transaction. The plant is the world's most advanced steel finishing facility, with a total annual capacity of 5.3 million metric tons. Elsewhere, Japan's Hitachi Metals bought Waupaca Foundry, formerly ThyssenKrupp Waupaca, for US$1.3bn. Hitachi Metals has a strategy of expansion through acquisitions. Waupaca Foundry is the world's biggest supplier of iron castings and its purchase adds hugely to Hitachi's ability to produce iron castings for automakers.

Figure 9: M&A activity in North America (by target)

North America	Steel		Aluminium		Other metals	
2014	Number	Value US$bn	Number	Value US$bn	Number	Value US$bn
Domestic	22	2,593	12	290	28	1,692
Cross border	3	1,550	4	67	6	1,357
All deals	25	4,143	16	357	34	3,049
2013	Number	Value US$bn	Number	Value US$bn	Number	Value US$bn
Domestic	8	2,615	4	61	31	2,944
Cross border	4	32	0	0	7	1,341
All deals	12	2,647	4	61	38	4,284

Figure 10: M&A activity in Central and South America (by target)

Central & South America	Steel		Aluminium		Other metals	
2014	Number	Value US$bn	Number	Value US$bn	Number	Value US$bn
Domestic	0	0	0	0	4	0
Cross border	1	247	2	10	5	49
All deals	1	247	2	10	9	49
2013	Number	Value US$bn	Number	Value US$bn	Number	Value US$bn
Domestic	3	41	2	28	3	196
Cross border	0	0	0	0	6	843
All deals	3	41	2	28	9	1,039

Asia Pacific

Asia Pacific metal deal activity was almost wholly domestically focused in 2014. Ninety two per cent, US$2.6bn, of the US$2.8bn total deal value for targets in the region was accounted for by domestic deals, with the buyer and seller located in the same country. Deals in the 'other metals' sub-segment dominated, most of them for ore resources. 'Other metals' deal value totalled US$1.9bn, again nearly all of it from domestic deals.

There was a notable absence of US$1bn-plus deals, with no large corporate mergers or big moves for Australian iron ore resources of the kind that had boosted Asia Pacific deal value in previous years. The fall in the number of deals for metals targets in Asia Pacific exceeded the worldwide drop in volume – 15% versus 6%. But it was the steep fall in value that was eye-catching. Regional deal value was down 87% to US$2.8bn in 2014 compared to US$21.1bn in 2013.

Larger deal activity was confined to medium-sized resource deals. The biggest 2014 deal for a target in the region saw TOO Kaztsink, a unit of Glencore International, acquire Kazakhstan metal ore mine operator AO Zhayremskiy gorno-obogatitelnyi kombinat in a deal worth US$307m. It was followed in size by a US$232m friendly merger in Australia with iron ore miner BC Iron taking over Iron Ore Holdings.

The deal allowed BC Iron to streamline and reduce the costs of its Western Australian operations. The second largest Australian deal was a US$170m move by Sirius Resources to gain 100% ownership of the Nova-Bollinger nickel-copper deposits. In China, Beijing Dinghan Technology acquired Anhui Chaohu Haixing Cable Group, in a US$225m deal at the beginning of 2014.

Outbound international activity by Asia Pacific buyers for deals outside the region was relatively quiet. Nippon Steel's & Sumitomo Metal's US$1.6bn purchase with ArcelorMittal of the Calvert steel finishing plant in the US and Hitachi Metals' US$1.3bn purchase of US company Waupaca Foundry were notable exceptions. But there was nothing to compare with the previous instances of large deals for raw materials resources by Chinese, Japanese and Korean buyers.

Figure 11: M&A activity in Asia Pacific (by target)

Asia Pacific	Steel		Aluminium		Other metals	
2014	Number	Value US$bn	Number	Value US$bn	Number	Value US$bn
Domestic	27	377	11	381	68	1,818
Cross border	10	133	4	52	18	45
All deals	37	510	15	433	86	1,863
2013	Number	Value US$bn	Number	Value US$bn	Number	Value US$bn
Domestic	43	5,240	18	9,228	68	6,359
Cross border	11	28	4	50	20	179
All deals	54	5,268	22	9,278	88	6,537

Europe (including the Russian Federation)

Difficult market conditions continue to form the backdrop for much of the European metals sector. 2015 brings two big new factors into play – quantitative easing (QE) in the eurozone and the lower oil price environment – which could support growth. The weakening euro exchange rate is also a positive for producers. But there are also considerable downside risks that cloud confidence and which are expected to continue to dampen demand. Much will hinge on the avoidance of deflation and economic data not tipping sentiment from concern to outright deflationary alarm.

Against this backdrop, metals deal activity in Europe remains subdued. Deal volume in western Europe fell 7% year on year in 2014, although two big inbound purchases from North American buyers for UK companies boosted total deal value. Together these two deals alone - Alcoa's US$3bn Firth Rixson acquisition and the US$587m purchase of Bridon Limited by Ontario Teachers' Pension Plan - accounted for three fifths (61%) of western European total metals deal value in 2014. Without them and the EU Commission requirement on TK to reacquire some former Inoxum assets, deal value would have been negligible.

Since reacquiring the Terni plant in Italy, TK has announced the implementation of €100m-per-year cost reductions at the facility. It is part of an ambitious programme of efficiencies across the whole TK business, targeted at achieving overall cost savings of €2.5bn by September 2015. The third biggest western European deal saw Hong Kong-based financial investor Guangyu International invest US$200m in new equity in Norwegian company Elkem Solar, giving it a 50% share of the maker of solar-grade silicon, silicon, special alloys for the foundry industry, carbon and microsilica. Elkem, which was acquired by China National Bluestar in 2011, then announced in late 2014 that it was to combine with fellow Norwegian solar company REC.

Activity in central and eastern Europe was largely confined to small deals, with total deal value falling from US$3.1bn in 2013 to US$0.3bn in 2014. The largest deal for assets in central and eastern Europe saw Russian company Evraz reduce debt with the US$286m sale of its wholly-owned subsidiary, Czech Republic-based Evraz Vitkovice Steel, to a group consortium of private investors.

This single deal accounted for 93% of the total US$306m central and eastern European 2014 metals deal value. Debt reduction was a theme for Russian metals companies, with Severstal's exit from the US being the prime example. Later in 2014, both Severstal and Evraz took the decision to buy back bonds as the oil price slump and rouble weakening worsened the credit outlook.

Figure 12: M&A activity in western Europe (by target)

Western Europe	Steel		Aluminium		Other metals	
2014	Number	Value US$bn	Number	Value US$bn	Number	Value US$bn
Domestic	13	0	17	6	20	24
Cross border	10	2,452	5	200	12	3,168
All deals	23	2,452	22	206	32	3,192
2013	Number	Value US$bn	Number	Value US$bn	Number	Value US$bn
Domestic	25	180	5	83	20	1,401
Cross border	10	102	3	0	20	756
All deals	35	282	8	83	40	2,157

Figure 13: M&A activity in central and eastern Europe (by target)

Central & eastern Europe	Steel		Aluminium		Other metals	
2014	Number	Value US$bn	Number	Value US$bn	Number	Value US$bn
Domestic	7	2	4	0	9	5
Cross border	4	287	1	7	9	4
All deals	11	289	5	7	18	9
2013	Number	Value US$bn	Number	Value US$bn	Number	Value US$bn
Domestic	9	20	0	0	24	2,671
Cross border	4	0	0	0	5	427
All deals	13	20	0	0	29	3,098

Contacts

Global Metals Team

Jim Forbes
Global Metals Leader
jim.forbes@ca.pwc.com
Tel: +1 (905) 815 6397

Usha Bahl-Schneider
Global Metals Marketing
& KM Senior Manager
usha.x.bahl-schneider@za.pwc.com
Tel: +27 11 797 4787

Territory contacts

Brazil
Ronaldo Valino
ronaldo.valino@br.pwc.com
Tel: +55 21 3232 6139

China
Ken Su
ken.x.su@cn.pwc.com
Tel: +86 6533 7290

Finland
Markku Marjomaa
markku.marjomaa@fi .pwc.com
Tel: +358 9 2280 1464

France
Marc Gerretsen
marc.gerretsen@fr.pwc.com
Tel: +33 1 5657 8216

Germany
Martin Theben
martin.theben @de.pwc.com
Tel: +49 201 4381524

India
Tapan Ray
tapan.ray@in.pwc.com
Tel: +91 98201 02067

Italy
Corrado Testori
corrado.testori@it.pwc.com
Tel: +39 06 570256442

Japan
Maurice Toyama
maurice.a.toyama@jp.pwc.com
Tel: +81 80 3124 7717

Korea
Jong-Chul Han
jong-chul.han@kr.pwc.com
Tel: +82 2 709 0408

Mexico
Jose Almodovar
jose.almodovar@mx.pwc.com
Tel: +52 55 5263-6000

Middle East
Anil Khurana
anil.khurana@ae.pwc.com
Tel: +971 4304 3100 (ext. 3652)

Netherlands
Dennis Muntslag
dennis.muntslag@nl.pwc.com
Tel: +31 887 927282

Philippines
Roderick Danao
roderick.danao@ph.pwc.com
Tel: +63 8452728

Poland
Tomasz Reinfuss
tomasz.reinfuss@pl.pwc.com
Tel: +48 4296100

Russia
Lev Vilyaev
lev.vilyaev@ru.pwc.com
Tel: +7 495 2325703

Slovakia
Alica Pavukova
alica.pavukova@sk.pwc.com
Tel: +421 2 59350 419

Sweden
Sten Håkansson
sten.haakansson@se.pwc.com
Tel: +46 8 55533349

Switzerland
Urs Brügger
urs.bruegger@ch.pwc.com
Tel: +41 58 792 4510

Taiwan
Gary Chih
Gary.chih@tw.pwc.com
Tel: +886 2 2729 6666

UK
Darren Jukes
darren.jukes@uk.pwc.com
Tel: +44 207 804 8555

US
Michael Tomera
michael.tomera@us.pwc.com
Tel: +1 412 355 6095

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